

REMARKS

Claims 16, 17, 20, 22, 27 and 28 are now pending in the application. Claims 16 and 20 are amended herein. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

CLAIM OBJECTIONS

Claim 16 stands objected to for certain informalities. Claim 16 is amended per the Examiner's suggestion. Accordingly, reconsideration of the objection is respectfully requested.

REJECTION UNDER 35 U.S.C. § 103

Claims 16, 17, 20, 22, 27 and 28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Masazumi et al. (U.S. Pat. No. 6,331,884) in view of Hashizume et al. (U.S. Pat. Pub. No. 2002/0062787) and further in view of Yamamoto et al. (JP 09-138410). Claims 20 and 22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hsieh et al. (U.S. Pat. No. 6,867,840) in view of Hashizume et al. (U.S. Pat. Pub. No. 2002/0062787) and further in view of Yamamoto et al. (JP 09-138410). Claim 28 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Hsieh et al. (U.S. Pat. No. 6,867,840) in view of Hashizume et al. (U.S. Pat. Pub. No. 2002/0062787) and Yamamoto et al. (JP 09-138410) as applied above, and further in view of Yamamoto et al. (U.S. Pat. Pub. No. 2004/0201818). These rejections are respectfully traversed.

Notwithstanding Applicant's traverse and solely in the interest of expediting prosecution, Application amends independent claims 16 and 20. The amendment "a joined portion of the liquid droplets is located at a boundary of the pixel regions" in amended claims 16 and 20 is based on the description: "In addition, a plurality of pixel regions PX are arranged on substrate 20 in this example, and liquid droplets are made to impact at the locations of the centers of each of the plurality of pixel regions PX. Consequently, *the joined portions of the liquid droplets are located at the boundaries (e.g., the bank portions) of the plurality of pixel regions PX*, and decreases in visibility of the pixels caused by drop marks forming at the joined portions are inhibited. Namely, even if drop marks of liquid droplets occur at the joined portions, since those drop marks are located in non-display regions, decreases in visibility are inhibited" on Page 18, lines 4 to 10, in the original specification of the present application.

Accordingly, no new matter is added.

A liquid crystal discharging method according to the currently amended claim 16 includes "discharging the liquid droplets from the nozzles such that: each of the liquid droplets has said weight; the diameter of the liquid droplets after impact be roughly equal to the arrangement pitch of the plurality of pixel regions, to coat each of the plurality of pixel regions with the liquid droplets; and *a joined portion of the liquid droplets is located at a boundary of the pixel regions*".

By employing this feature, the liquid crystal discharging method according to the currently amended claim 16 can obtain an advantageous effect that "the joined portions of the liquid droplets are located at the boundaries (e.g., the bank portions) of the plurality of pixel regions PX, and *decreases in visibility of the pixels caused by drop*

marks forming at the joined portions are inhibited. Namely, even if drop marks of liquid droplets occur at the joined portions, since those drop marks are located in non-display regions, decreases in visibility are inhibited" (refer to Page 18, lines 6 to 10, in the original specification of the present application).

On the other hand, the references of record neither disclose nor suggest the above-mentioned feature of the claimed invention.

More particularly, Masazumi et al. discloses in FIG. 5 discharging liquid crystal materials 9a, 9a', and 9a" onto a resin precursor 9b', but is silent about (i) controlling the diameter of the liquid crystal materials 9a, 9a', and 9a" after impact so as to be roughly equal to the arrangement pitch of plurality of pixel regions, to coat each of the plurality of pixel regions with the liquid crystal materials 9a, 9a', and 9a", and (ii) locating joined portions of the liquid droplets at boundaries of the pixel regions.

In addition, Hashizume et al. discloses in FIG. 7 a measurement device 54 which measures the weight of the liquid crystal dripped by a dispenser 51, but is silent about (i) controlling the diameter of the liquid crystal after impact so as to be roughly equal to the arrangement pitch of plurality of pixel regions, to coat each of the plurality of pixel regions with the liquid crystal, and (ii) locating joined portions of the liquid crystals at boundaries of the pixel regions.

Further, Yamamoto et al. discloses in FIG. 1 an area-type inkjet nozzle 2, but is silent about (i) controlling the diameter of the liquid material after impact so as to be roughly equal to the arrangement pitch of plurality of pixel regions, to coat each of the plurality of pixel regions with the liquid material, and (ii) locating joined portions of the liquid material at boundaries of the pixel regions.

Finally, Hsieh et al. discloses in FIG. 3E discharging liquid crystals 170 onto a substrate 100, but is silent about (i) controlling the diameter of the liquid crystal materials 170 after impact so as to be roughly equal to the arrangement pitch of plurality of pixel regions, to coat each of the plurality of pixel regions with the liquid crystals 170, and (ii) locating joined portions of the liquid crystals 170 at boundaries of the pixel regions.

Accordingly, Applicant respectfully submits that claim 16 should be allowable since it includes the above-mentioned feature which cannot be obtained just by combining the above references, and enables obtaining the above-mentioned advantageous effect.

Claim 20 should be allowable for the same reasons as set forth above regarding claim 16.

Claims 17, 22, 27 and 28 should be allowable due to their dependency on allowable claim 16 or 20.

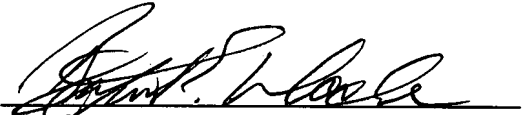
CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner

believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

Dated: Sept. 26, 2007

By: 
G. Gregory Schivley
Reg. No. 27,382
Bryant E. Wade
Reg. No. 40,344

HARNESS, DICKEY & PIERCE, P.L.C.
P.O. Box 828
Bloomfield Hills, Michigan 48303
(248) 641-1600

[GGS/BEW/pvd]